

## Contents of Volume 73

### Volume 73(1)

- Editorial**
- iv Want to Transition Your Practice?  
Robert J. Isaacson
- 1 What's New in Dentistry**  
Vincent Kokich
- Original Articles**
- 3 Mandibular Symphyseal Distraction Osteogenesis: Diagnosis and Treatment Planning Considerations  
Richard Conley, Harry Legan
- 12 Study of Stress Distribution and Displacement of Various Craniofacial Structures Following Application of Transverse Orthopedic Forces—A Three-dimensional FEM Study  
Alireza Jafari, K. Sadashiva Shetty, Mohan Kumar
- 21 Morphometric Analysis of the Transverse Dentoskeletal Features of Class II Malocclusion in the Mixed Dentition  
Muhieddin Alarashi, Lorenzo Franchi, Andrea Marinelli, Efisio Defraia
- 26 Skeletal Changes of Maxillary Protraction in Patients Exhibiting Skeletal Class III Malocclusion: A Comparison of Three Skeletal Maturation Groups  
Kyung-Suk Cha
- 36 Effects of Extraction and Nonextraction Treatment on Class I and Class II Subjects  
Faruk Ayhan Basciftci, Serdar Usumez
- 43 Occupational Stress Among Canadian Orthodontists  
Stephen F. Roth, Giseon Heo, Connie Varnhagen, Kenneth E. Glover, Paul W. Major
- 51 Do Failed Appointments Lead to Discontinuation of Orthodontic Treatment?  
Michael John Trenouth
- 56 Bond Strength of Orthodontic Brackets Using Different Light and Self-Curing Cements  
Manuel Toledoano, Raquel Osorio, Estrella Osorio, Alejandro Romeo, Blanca de la Higuera, Franklin Garcia-Godoy
- 64 Effect of Self-Etching Primers on Bond Strength—Are They Reliable?  
Tamer Buyukyilmaz, Serdar Usumez, Ali Ihya Karaman
- 71 Comparison of Skeletal and Dental Morphology in Asymptomatic Volunteers and Symptomatic Patients with Bilateral Degenerative Joint Disease  
Ioanna K. Gidarakou, Ross H. Tallents, Stephanos Kyrianides, Scott Stein, Mark Moss
- Review Articles**
- 79 Temporomandibular Joint Morphology Changes with Mandibular Advancement Surgery and Rigid Internal Fixation: A Systematic Literature Review  
Michael L. Kersey, Brian Nebbe, Paul W. Major
- 86 Optimum Force Magnitude for Orthodontic Tooth Movement: A Systematic Literature Review  
Yijin Ren, Jaap C. Maltha, Anne Marie Kuijpers-Jagtman
- Case Report**
- 93 Use of a Tip-Edge Stage-1 Wire to Enhance Vertical Control During Straight Wire Treatment: Two Case Reports  
Helen Taylor
- Obituary**
- 100 Dr. John S. Kloehn

### Volume 73(2)

- Editorial**
- iv Orthodontic Information—A Lot More Coins in the Realm  
Robert J. Isaacson
- 107 What's New in Dentistry**  
Vincent Kokich
- Original Articles**
- 109 A 20-Year Follow-up of Signs and Symptoms of Temporomandibular Disorders and Malocclusions in Subjects With and Without Orthodontic Treatment in Childhood  
Inger Egermark, Tomas Magnusson, Gunnar E. Carlsson
- 116 Comparison of Skeletal and Dental Morphology in Asymptomatic Volunteers and Symptomatic Patients with Normal Temporomandibular Joints  
Ioanna K. Gidarakou, Ross H. Tallents, Stephanos Kyrianides, Scott Stein, Mark E. Moss
- 121 Comparison of Skeletal and Dental Morphology in Asymptomatic Volunteers and Symptomatic Patients with Unilateral Disk Displacement Without Reduction  
Ioanna K. Gidarakou, Ross H. Tallents, Stephanos Kyrianides, Scott Stein, Mark E. Moss
- 128 Biomechanics of Craniofacial Sutures: Orthopedic Implications  
Jeremy J. Mao, Xin Wang, Ross A. Kopher
- 136 Children with Class III Malocclusion: Development of Multivariate Statistical Models to Predict Future Need for Orthognathic Surgery  
Gabriele Schuster, Christopher J. Lux, Angelika Stellzig-Eisenhauer
- 146 Vertical Growth Changes After Adenoidectomy  
Tulin Arun, Fulya Isik, Korkmaz Sayinsu
- 151 Effects of Experimental Nasal Obstruction on Human Masseter and Suprhyoid Muscle Activities During Sleep  
Shigetoshi Hiyama, Takashi Ono, Yasuo Ishiwata, Takayuki Kuroda, Kimio Ohyama
- 158 Effects of Maxillary Molar Intrusion on the Nasal Floor and Tooth Root Using the Skeletal Anchorage System in Dogs  
Takayoshi Daimaruya, Ichiro Takahashi, Hiroshi Nagasaka, Mikako Umemori, Junji Sugawara, Hideo Mitani
- 167 Influence of Stainless Steel Inserts on the Resistance to Sliding of Esthetic Brackets with Second-Order Angulation in the Dry and Wet States  
Glenns Thorstenson, Robert Kusy
- 176 Bond Strength with Custom Base Indirect Bonding Techniques  
Arnd Klocke, Jianmin Shi, Bärbel Kahl-Nieke; Ulrich Bismayer
- 181 A Comparison of Dynamic and Static Testing of Latex and Nonlatex Orthodontic Elastics  
Michael L. Kersey, Kenneth E. Glover, Giseon Heo, Don Raboud, Paul W. Major
- 187 Longitudinal Study of Anteroposterior and Vertical Maxillary Changes in Skeletal Class II Patients Treated with Kloehn Cervical Headgear  
Roberto M. A. Lima Filho, Anna Letícia Lima, Antonio Carlos de Oliveira Ruellas

**Case Reports**

- 194 Mandibular Symphyseal Distraction and Its Geometrical Evaluation: Report of a Case**  
Metin Orhan, Siddik Malkoc, Serdar Usumez, Sina Uckan
- 201 Maxillary Anterior Segmental Advancement by Using Distraction Osteogenesis: A Case Report**  
Dogan Dolanmaz, Ali Ihya Karaman, Atilla Gokhan Ozyesil
- 206 Severe Anterior Open Bite Malocclusion with Multiple Odontoma Treated by C-Lingual Retractor and Horseshoe Mechanics**  
Seonghun Kim, Youngguk Park, Kyurhim Chung

**Volume 73(3)****Guest Editorial**

- iv On Reference Points—Cartesian vs Lagrangian**  
Eung-Kwon Pae

- 217 What's New in Dentistry**  
Vincent Kokich

**Original Articles**

- 221 Long-term Effectiveness and Treatment Timing for Bionator Therapy**  
Kurt Faltin Jr, Rolf M. Faltin, Tiziano Baccetti, Lorenzo Franchi, Bruno Ghiozzi, James A. McNamara Jr.
- 231 Long-term Results of Orthodontic Treatment of Impacted Maxillary Canines**  
Rozmary Mak D'Amico, Krister Bjerklii, Jüri Kurol, Babak Falahat
- 239 An Improved Transpalatal Bar Design, Part I. Comparison of Moments and Forces Delivered by Two Bar Designs for Symmetrical Molar Derotation**  
Elif Gündüz, Bjorn U. Zachrisson, Klaus D. Höngi, A. G. Crismani, H. P. Bantleon
- 244 An Improved Transpalatal Bar Design, Part II. Clinical Upper Molar Derotation—Case Report**  
Elif Gündüz, A. G. Crismani, H. P. Bantleon, Klaus D. Höngi, Bjorn U. Zachrisson
- 249 The Effect of Argon Laser Irradiation on Demineralization Resistance of Human Enamel Adjacent to Orthodontic Brackets: An In Vitro Study**  
Lloyd Noel, Joe Rebellato, Rose D. Sheats
- 259 Relative Stiffness of Beta Titanium Archwires**  
Earl Johnson
- 270 Testing Force Systems and Biomechanics—Measured Tooth Movements from Differential Moment Closing Loops**  
Andrew J. Kuhlberg, Derek Priebe
- 281 Maxillary Expansion in Class II Correction with Orthopedic Cervical Headgear. A Posteroanterior Cephalometric Study**  
Mirja Kirjavainen, Turkka Kirjavainen
- 286 Comparative Evaluation of a New Removable Jasper Jumper Functional Appliance vs an Activator-Headgear Combination**  
Zafer Sarı, Yasar Goyenc, Cenk Doruk, Serdar Usumez
- 294 A Cephalometric Comparison of Black Open-Bite Subjects and Black Normals**  
Richard A. Beane, Glynda Reimann, Ceib Phillips, Camilla Tulloch

- 301 Evaluation of the Validity of Tooth Size and Arch Width Measurements Using Conventional and Three-dimensional Virtual Orthodontic Models**  
Oded Zilberman, Jan Å. V. Huggare, Konstantinos A. Parikakis

- 307 Bolton Anterior Tooth Size Discrepancies Among Different Malocclusion Groups**  
Eustaquio Araujo, Marcelo Souki

- 314 Regression Equations for Determining Mesiodistal Crown Diameters of Canines and Premolars**  
Mario Legović, Andreja Novosel, Asja Legović

- 319 Influence of Friction at Articular Surfaces of the Temporomandibular Joint on Stresses in the Articular Disk: A Theoretical Approach with the Finite Element Method**  
Rodrigo del Pozo, Eiji Tanaka, Masao Tanaka, Masaaki Kato, Tatsunori Iwabe, Miho Hirose, Kazuo Tanne

**Case Report**

- 328 Treatment of a Patient with an Impacted Transmigrant Mandibular Canine and a Palatally Impacted Maxillary Canine**  
Joe Rebellato, Brian Schabel

**Volume 73(4)****Editorial**

- iv Orthodontic Education and Training: Where's the Beef?**  
Robert J. Isaacson

- 341 What's New in Dentistry**  
Vincent Kokich

**Original Articles**

- 344 Rapid Maxillary Expansion Followed by Fixed Appliances: A Long-term Evaluation of Changes in Arch Dimensions**  
James A. McNamara Jr, Tiziano Baccetti, Lorenzo Franchi, Thomas A. Herberger

- 354 Extraction vs Nonextraction: Arch Widths and Smile Esthetics**  
Eunkoo Kim, Anthony A. Gianelly

- 359 The Effect of Axial Midline Angulation on Dental Esthetics**  
Jennifer L. Thomas, Catherine Hayes, Samer Zawaideh

- 365 Perception of Facial Esthetics: A Comparison of Similar Class II Cases Treated with Attempted Growth Modification or Later Orthognathic Surgery**  
Tracey L. Shell, Michael G. Woods

- 374 The Displacement of Craniofacial Reference Landmarks During Puberty: A Comparison of Three Superimposition Methods**  
Z. Mirzen Arat, Meliha Rübendüz, Ayça Arman Akgül

- 381 Craniofacial Asymmetry in Development: An Anatomical Study**  
Marcelle Rossi, Eduardo Ribeiro, Ricardo Smith

- 386 The Effects of Commonly Prescribed Premolar Extraction Sequences on the Curvature of the Upper and Lower Lips**  
Christopher J. Wholley, Michael G. Woods

- 396 A Longitudinal Study of Incremental Expansion Using a Mandibular Lip Bumper**  
C. Chris Murphy, W. Bonham Magness, Jeryl D. English, Sylvia A. Frazier-Bowers, Anna Maria Salas

- 401 Preliminary Investigation of Nonsurgical Treatment of Severe Skeletal Class III Malocclusion in the Permanent Dentition**  
Jiuxiang Lin, Yan Gu
- 411 Relationship Between Signs and Symptoms of Temporomandibular Disorders and Orthodontic Treatment: A Cross-sectional Study**  
Ana Conti, Marcos Freitas, Paulo Conti, José Henrique, Guilherme Janson
- 418 Effects of Ligation Type and Method on the Resistance to Sliding of Novel Orthodontic Brackets with Second-Order Angulation in the Dry and Wet States**  
Glenys A. Thorstenson, Robert P. Kusy
- 431 Evaluation of a New Curing Light on the Shear Bond Strength of Orthodontic Brackets**  
Samir E. Bishara, Raed Ajlouni, Charuphan Oonsombat
- 436 Glass Ionomer Cements as Luting Agents for Orthodontic Brackets**  
K. S. Coups-Smith, P. E. Rossouw, K. C. Titley
- 445 In Vitro Investigation of Indirect Bonding with a Hydrophilic Primer**  
Arndt Klocke, Jianmin Shi, Bärbel Kahl-Nieke, Ulrich Bismayer
- 452 Tensile and Shear Bond Strength of Resin-Reinforced Glass Ionomer Cement to Glazed Porcelain**  
Yoshitaka Kitayama, Akira Komori, Rizako Nakahara
- Review Article**
- 458 The Correlation of Replicating Cells and Osteogenesis in the Condyle During Stepwise Advancement**  
A. Bakr M. Rabie, Ming-Ju Marjorie Tsai, Urban Hägg, Xi Du, Bing-Wu Chou
- Case Reports**
- 467 Palatally Displaced Canine Anomaly in Monozygotic Twins**  
Rosalia Leonardi, Sheldon Peck, Mario Caltabiano, Ersilia Barbato
- 472 Bodily Distalization of Molars with Absolute Anchorage**  
Ahmet Keles, Nejat Erverdi, Serdar Sezen
- In Memoriam**
- 484 Laurel Edward Brown**

**Volume 73(5)**

- Editorial**
- iv Orthodontic Education—Who Pays the Bills?**  
Robert J. Isaacson
- 491 What's New in Dentistry**  
Vincent Kokich
- Original Articles**
- 493 Amount and Direction of Temporomandibular Joint Growth Changes in Herbst Treatment: A Cephalometric Long-Term Investigation**  
Hans Pancherz, Svenja Fischer
- 502 Incisor Crowding in Untreated Persons 15–50 Years of Age: United States, 1988–1994**  
Peter H. Buschang, Jay D. Shulman
- 509 Longitudinal Dental Arch Changes in the Mixed Dentition**  
Mladen Šljaj, Marina A. Ježina, Tomislav Lauc, Senka Rajić-Meštrović, Martina Mikšić
- 515 Skeletal and Dental Contributions to Posterior Crossbites**  
David Allen, Joe Rebellato, Rose Sheats, Ana M. Ceron
- 525 Muscular Adaptation to Gradual Advancement of the Mandible**  
Xi Du, Urban Hägg
- 532 Effect of Rapid Maxillary Expansion on Nocturnal Enuresis**  
Serdar Usumez, Haluk İşeri, Metin Orhan, Faruk Ayhan Basciftci
- 539 Three-Dimensional Analysis of Dental Casts Based on a Newly Defined Palatal Reference Plane**  
Kazuo Hayashi, Jun Uechi, Itaru Mizoguchi
- 545 <sup>99m</sup>Technetium-Labeled Methylenediphosphonate Uptake in Maxillary Bone During and After Rapid Maxillary Expansion**  
Z. Mirzen Arat, Hatice Gökalp, Tamer Atasever, Hakan Türk Kahraman
- 550 Magnetic Resonance Imaging Assessment of Positional Relationship Between the Disk and Condyle in Asymptomatic Young Adult Mandibular Prognathism**  
Hatice Gökalp
- 556 Clinical Use of the ABO-Scoring Index: Reliability and Subtraction Frequency**  
William S. Lieber, Sean K. Carlson, Sheldon Baumrind, Donald R. Poulton
- 565 Bond Strengths of Orthodontic Bracket After Acid-Etched, Er:YAG Laser-Irradiated and Combined Treatment on Enamel Surface**  
Bor-Shiunn Lee, Tseng-Ting Hsieh, Yuan-Ling Lee, Wan-Hong Lan, Yao-Jeng Hsu, Ping-Han Wen, Chun-Pin Lin
- 571 Possibility of Blood and Hepatitis B Contamination Through Aerosols Generated During Debonding Procedures**  
Mustafa Serdar Toroglu, Ozlem Bayramoglu, Fugen Yarkin, Abdullah Tuli
- 579 Effects of a Mechanical Interdental Cleaning Device on Oral Hygiene in Patients with Lingual Brackets**  
Ariane Hohoff, Thomas Stamm, Nicola Kühne, Dirk Wiechmann, Stephan Haufe, Carsten Lippold, Ulrike Ehmer
- Review Article**
- 588 A Systematic Review Concerning Early Orthodontic Treatment of Unilateral Posterior Crossbite**  
Sofia Petrén, Lars Bondemark, Björn Söderfeldt
- Case Reports**
- 597 Intrusion of Supererupted Molars with Titanium Miniplate Anchorage**  
Keith H. Sherwood, James Burch, William Thompson
- 602 Use of Distraction Osteogenesis in Cleft Palate Patients**  
Ki Chul Tae, Seiw Ging Gong, Song Ki Min, Song Whan Oh
- 608 An Adolescent Case of Anterior Open Bite with Masticatory Muscle Dysfunction**  
Eiji Tanaka, Tatsunori Iwabe, Mineo Watanabe, Masaaki Kato, Kazuo Tanne
- 614 Personal Computer-Based Three-Dimensional Computed Tomographic Images of the Teeth for Evaluating Supernumerary or Ectopically Impacted Teeth**  
Kee-Deog Kim, Axel Ruprecht, Kug-Jin Jeon, Chang-Seo Park

**Volume 73(6)****Editorial**

- iv The Commoditization of Orthodontics**  
Robert J. Isaacson

- 627 What's New in Dentistry**

Vincent Kokich

**Original Articles**

- 631 Growth Modification of the Rabbit Mandible Using Therapeutic Ultrasound: Is it Possible to Enhance Functional Appliance Results?**

Tarek El-Bialy, Iman El-Shamy, Thomas M. Gruber

- 640 The Investigation of Occlusal Contacts During the Retention Period**

Müfide Dincer, Orhan Meral, Nazli Tumer

- 647 The Effect of Mandibular Protrusive (Activator) Appliances on Articular Eminence Morphology**

Elias G. Katsavrias

- 654 Rapid Maxillary Expansion. Is it Better in the Mixed or in the Permanent Dentition?**

Zafer Sari, Tuncan Uysal, Serdar Usumez, Faruk Ayhan Basciftci

- 662 Changes in Lip, Cheek, and Tongue Pressures After Rapid Maxillary Expansion Using a Diaphragm Pressure Transducer**

Nazan Küçükkeleş, Cenk Ceylanoglu

- 669 Rapid Maxillary Expansion and Conductive Hearing Loss**

Fatma Taspinar, Harun Ucuncu, Samir E. Bishara

- 674 Dental Arch Widths and Mandibular-Maxillary Base Widths in Class II Malocclusions Between Early Mixed and Permanent Dentitions**

Christopher J. Lux, Christian Conradt, Donald Burden, Gerda Komposch

- 686 A Comparative Analysis of Maxillary Tooth Movement Produced by Cervical Headgear and Pend-X Appliance**

Tulin Ugur Taner, Filiz Yukay, Muge Pehlivanoglu, Banu Cakirer

- 692 Effects of Thermocycling on the Bond Strength of a Resin-Modified Glass Ionomer Cement: An In Vitro Comparative Study**

Selim Arici, Nursel Arici

- 697 In Vitro Evaluation of a Moisture-Active Adhesive for Indirect Bonding**

Arndt Klocke, Jianmin Shi, Bärbel Kahl-Nieke, Ulrich Bismayer

- 702 Assessing the Performance of a Methyl Methacrylate-Based Resin Cement with Self-Etching Primer for Bonding Orthodontic Brackets**

Mayuko Kawasaki, Tohru Hayakawa, Tsutomu Takizawa, Somsak Sirirungrojying, Kayo Saitoh, Kazutaka Kasai

- 710 Crown-Root Shape of the Permanent Maxillary Central Incisor**

Grant T. McIntyre, Declan T. Millett

- 716 Skeletal and Dental Effects During Observation and Treatment with a Magnetic Device**

Orhan Meral, Sema Yüksel

- 723 Management of Alveolar Clefts Using Dento-osseous Transport Distraction Osteogenesis**

Dogan Dolanmaz, Ali Ihya Karaman, Ercan Durmus, Siddik Malkoc

- 730 Anchorage Loss—A Multifactorial Response**

Silvia Geron, Nir Shpach, Samouil Kandos, Moshe Davidovitch, Alexander D. Vardimon

**Clinical Report**

- 738 Intrabony Migration of Impacted Teeth**

Yehoshua Shapira, Mladen M. Kuftinec

- 744 Commentary: Intrabony Migration of Impacted Teeth**

Sheldon Peck

**Case Reports**

- 745 Spontaneous Correction of Class II Malocclusion After Rapid Palatal Expansion**

Roberto M. A. Lima Filho, Anna Carolina Lima, Antonio Carlos de Oliveira Ruellas

- 753 Transmigration of Mandibular Canines—A Review of the Literature and a Report of Five Cases**

Simon Camilleri, Erica Scerri

- 763 Orthodontic and Orthopedic Treatment of a Patient with Incontinentia Pigmenti**

Cenk Doruk, Ali Altug Bicakci, Hasan Babacan

